

Claim Amendments

1. (currently amended) A seal comprising:

a first deflector ring comprising at least first and second radial fins that are axially adjacent to one another;

a second deflector ring, wherein the first and second deflector rings are arranged concentrically with respect to one another about a common axis of rotation and without contact with one another and wherein the radial fins of the first deflector ring do not contact the second deflector ring; and

an annular first cavity located between the axially adjacent radial fins and the second deflector ring, the cavity being radially bound by the first and second deflector rings;

wherein the second deflector ring has a continuously smooth outwardly conical inner lateral surface which radially faces the first deflector ring.

2. (previously presented) The seal as claimed in claim 1, wherein the second deflector ring at least partially surrounds the first deflector ring on the radially outer side, the first deflector ring being rotatable relative to the second deflector ring about the axis of rotation.

3. (previously presented) The seal as claimed in claim 2, wherein

the cavity presents a radially innermost bottom whose radial distance to the second deflector ring is at least 1.4 times the axial distance between the adjacent radial fins that bound the cavity.

4. (currently amended) The seal as claimed in claim 2, wherein a the first radial fin that is arranged furthest axially outward at the seal and at least partially closes off the seal with respect to an environment surrounding the seal in the axial direction is radially longer than a the second radial fin that lies axially opposite the first radial fin at the cavity.

5. (withdrawn) The seal as claimed in claim 4, wherein the radial distance between an inner lateral surface, facing the first deflector ring, of the second deflector ring and the axis of rotation increases as the axial proximity to the surrounding environment decreases, the inner lateral surface at least partially engaging radially around the radial fins and the first cavity.

6. (previously presented) The seal as claimed in claim 2,
wherein the cavity is bound by annular surfaces that radially increase in distance from one another towards the second deflector ring.

7. (previously presented) The seal as claimed in claim 6, wherein the annular surface is inclined at an angle of from 70° to 85° with respect to the axis of rotation.

8. (previously presented) The seal as claimed in claim 2, wherein the first cavity merges axially into a radial first annular gap between the first radial fin and the second deflector ring and into a radial second annular gap between the second radial fin and the second deflector ring.

9. (previously presented) The seal as claimed in claim 8, wherein the first annular gap on an axially outer side of the first radial fin between the first deflector ring and the second deflector ring opens out freely into an environment axially surrounding the seal.
10. (previously presented) The seal as claimed in claim 8, wherein the first annular gap is radially narrower than the second annular gap.
11. (previously presented) The seal as claimed in claim 8, wherein the second annular gap runs radially closer to the axis of rotation than the first annular gap.
12. (withdrawn) The seal as claimed in claim 8, wherein the first annular gap opens out axially into a radial first collection channel, which runs around the axis of rotation, in the second deflector ring, and the first collection channel is open toward the environment axially surrounding the seal.
13. (previously presented) The seal as claimed in claim 8, wherein the second annular gap opens out into a second cavity, the second cavity, which is annular in form, being at least partially enclosed by the first deflector ring and the second deflector ring.
14. (previously presented) The seal as claimed in claim 13, wherein the second radial fin and a third radial fin, at the first deflector ring, lie freely axially opposite one another, separated from one another by the second cavity.

15. (previously presented) The seal as claimed in claim 14, wherein the second cavity merges axially into the radial second annular gap and into a third annular gap between the third radial fin and the second deflector ring.

16. (previously presented) The seal as claimed in claim 15, wherein the first annular gap is radially narrower than the second annular gap, and in that the second annular gap is radially narrower than the third annular gap.

17. (previously presented) The seal as claimed in claim 15, wherein the first annular gap is further away from the axis of rotation in the radial direction than the second annular gap, and in that the second annular gap is further away from the axis of rotation in the radial direction than the third annular gap at its radially narrowest point.

18. (previously presented) The seal as claimed in claim 15, wherein the first radial fin is radially longer than the second radial fin, and in that the second radial fin is radially longer than the third radial fin.

19. (previously presented) The seal as claimed in claim 15, wherein the third annular gap, starting from the second cavity, runs initially radially between the third radial fin and the second deflector ring and then runs onward, in the direction of the axis of rotation, on a curved path between the third radial fin and the second deflector ring, and finally, on a side of the third radial fin which is axially remote from the second radial fin, is formed axially

between the third radial fin and the second deflector ring.

20. (previously presented) The seal as claimed in claim 15, wherein the third annular gap, starting from the second cavity, leads to a third cavity in the seal, the third cavity being enclosed at least by the first deflector ring and by the second deflector ring.

21. (previously presented) The seal as claimed in claim 15, wherein the third annular gap runs out in the radial direction via a second collection channel which runs around the axis of rotation, the second collection channel being formed at the second deflector ring, and in this arrangement the first deflector ring at least partially projecting axially beyond the second collection channel on the radially outer side.

22. (previously presented) The seal as claimed in claim 1, wherein the second deflector ring at least partially surrounds the first deflector ring on the radially outer side, and in that at least one seal with at least one elastic sealing lip starts from the second deflector ring, the sealing lip being radially prestressed against a shaft.

23. (previously presented) The seal as claimed in claim 22, wherein the sealing lip is arranged axially next to the first deflector ring, which is seated on the shaft and delimits the seal on the axially outer side.

24. (previously presented) The seal as claimed in claim 22, wherein the sealing lip is at least 2.5 times as long as the sealing lip is thick at the thickest point transversely with respect to this length.